

Title (en)  
Variable phase shifter

Title (de)  
Variabler Phasenschieber

Title (fr)  
Déphaseur variable

Publication  
**EP 1128459 A3 20020508 (EN)**

Application  
**EP 01301479 A 20010220**

Priority  
JP 2000042103 A 20000221

Abstract (en)  
[origin: EP1128459A2] A variable phase shifter is improved in liquid crystal response characteristics by using a thin liquid crystal material as a dielectric substrate. The variable phase shifter (10) includes two substrates (11, 12) disposed parallel to each other. The substrates have alignment layers on their mutually opposing inner surfaces. A liquid crystal layer (13) is sealed in the area between the substrates (11, 12). A transmission line (14) is formed to meander on the inner surface of one of the substrates. A grounding conductor (15) is formed on the inner surface of the substrate along the transmission line at a predetermined distance d2 therefrom. External electrodes (16, 17) are formed at least in regions on the respective outer surfaces of the substrates, each of which regions corresponds to the gap between the transmission line and the grounding conductor. A bias voltage source (18) applies a bias voltage between the upper and lower external electrodes. <IMAGE>

IPC 1-7  
**H01P 1/18**

IPC 8 full level  
**G02F 1/13** (2006.01); **H01P 1/18** (2006.01)

CPC (source: EP US)  
**H01P 1/181** (2013.01 - EP US)

Citation (search report)  
• [A] US 5537242 A 19960716 - LIM KHOON-CHENG [US]  
• [X] DOLFI D: "LIQUID CRYSTAL MICROWAVE PHASE SHIFTER", ELECTRONICS LETTERS, IEE STEVENAGE, GB, vol. 29, no. 10, 13 May 1993 (1993-05-13), pages 926 - 928, XP000367678, ISSN: 0013-5194

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